

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
18 March 2004 (18.03.2004)

PCT

(10) International Publication Number  
**WO 2004/022750 A1**

(51) International Patent Classification<sup>7</sup>: **C12N 15/12**,  
15/52, 9/00, C07K 14/47, 16/18, 16/40, 16/42, G01N  
33/48, 33/50, 33/68

14 Mosman Street, Mosman, New South Wales 2088 (AU). **SUTHERLAND, Robert** [NZ/AU]; 20 Northcot Road, Lindfield, New South Wales 2070 (AU). **O'BRIEN, Philippa** [GB/AU]; 73 Ocean Street, Woollahra, New South Wales 2025 (AU).

(21) International Application Number:  
PCT/AU2003/001164

(74) Agent: **FB RICE & CO.**; 139 Rathdowne Street, Carlton, Victoria 3053 (AU).

(22) International Filing Date:  
5 September 2003 (05.09.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
2002951346 5 September 2002 (05.09.2002) AU  
60/425,218 7 November 2002 (07.11.2002) US

(81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(71) Applicant (*for all designated States except US*): **GARVAN INSTITUTE OF MEDICAL RESEARCH** [AU/AU]; C/- St. Vincent's Hospital, 384 Victoria Street, Darlinghurst, New South Wales 2010 (AU).

(84) Designated States (*regional*): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(72) Inventors; and

(75) Inventors/Applicants (*for US only*): **WATTS, Colin** [AU/AU]; 167 Avalon Parade, Avalon, New South Wales 2107 (AU). **SAUNDERS, Darren** [AU/AU]; 358 Belmont Street, Alexandria, New South Wales 2015 (AU). **HENDERSON, Michelle** [AU/AU]; 2/25-31 Alexandra Street, Drummoyne, New South Wales 2047 (AU). **CLANCY, Jennifer** [AU/AU]; 1/84 Percival Road, Stanmore, New South Wales 2048 (AU). **HENSHALL, Susan** [AU/AU];

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: NOVEL DIAGNOSTIC AND THERAPEUTIC METHODS AND REAGENTS THEREFOR

(57) Abstract: This invention provides novel methods of detecting or treating aberrant cell cycle regulation associated with expression of a nuclear protein encoded by a gene that is linked to map position 8q22.3 of the human genome, and to novel reagents that are useful therefor. More particularly, the invention provides novel nucleic acid and proteinaceous probes, for detecting a gene that is linked to map position 8q22.3 of the human genome or the expression products thereof, wherein expression or elevated expression of said gene is associated with the appearance or occurrence of tumors associated with cancer, DNA damage and progesterone-receptor-mediated effects on cells. The invention also provides reagents and methods for detecting or modulating the expression products of the gene, such as, for example, in the diagnosis or treatment of cancer, cellular proliferation, DNA damage or progesterone receptor-mediated effects on cells.